REMARKS

Applicant expresses appreciation to the Examiner for the courtesy of an interview granted to applicant's representatives Marc A. Berger (Reg. No. 44,029) and Marc A. Sockol (Reg. No. 40,823). The interview was held by telephone on Thursday, October 21, 2004. Applicant has amended the claim language to clearly distinguish over Murphy et al., US Patent No. 6,282,362, as discussed with the Examiner during the interview.

Applicant has carefully studied the outstanding Office Action. The present amendment is intended to place the application in condition for allowance and is believed to overcome all of the objections and rejections made by the Examiner. Favorable reconsideration and allowance of the application are respectfully requested.

Applicant has amended claims 1, 14, 27, 36, 45, 50, 53 and 66. No new matter has been added. Claims 1, 3 – 14, 16 – 27, 29 – 36, 38 - 53, 55 – 66 and 68 - 80 are presented for examination.

Applicant notes that three of the claims listed in the amendment filed on July 16, 2004 were erroneously mis-labeled. Specifically, claim 16 was labeled as "original", but should have been labeled as "currently amended". Claims 29 and 33 were labeled as "previously presented", but should have been labeled as "currently amended".

In Paragraph 3 of the Office Action, claims 1, 3 – 14, 16 – 27, 29 – 36, 38 - 53, 55 – 66 and 68 - 80 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Mast, U.S. Patent No. 5,881,287 ("Mast") in view of Murphy et al., US Patent No. 6,282,362 ("Murphy").

In Paragraphs 2 and 3.2 of the present invention, the Examiner, citing Murphy, col. 4, lines 11 – 25, col. 7, lines 5 – 56, col. 20, lines 37 – 60 and col. 21, line 35 – col. 22, indicates that Murphy discloses recognizing individual pixel data as being protected or unprotected based on the least significant bits of the datum. Applicant respectfully submits that Murphy cannot recognize which pixel data has been set from the pixel data itself. On the contrary, Murphy utilizes a known pattern, P, of pixels, such as the patterns P illustrated in FIG. 7 of Murphy, to recognize which pixels have been set. Without knowledge of the pattern, P, Murphy would not be able to recognize which pixels contain embedded information. With knowledge of the pattern, P, Murphy can read the embedded information, such as authentication or position information, from the pixel data values at those pixel locations corresponding to the known pattern, P.

From a fundamental perspective, Murphy concerns embedding information within pixels of an image. In order to do so, Murphy embeds a string of bits within pixel data at a known geometric pattern of pixel locations. In distinction, the present invention concerns recognition of an unknown geometric pattern of pixel locations; namely, those pixel locations where proprietary image data is present.

Restated in an alternative but equivalent way, Murphy uses known pixel locations to recognize information embedded within pixel data, and the present application uses pixel data to recognize unknown pixel locations.

Referring specifically to Murphy, at col. 7, lines 14 – 25, Murphy recites "*If the authentication information is incorporated in the image, a set of pixels is chosen ... and these pixels are individually altered to contain appropriate parts of the desired information. The chosen set of pixels is determinable by, or known to, at least one person or facility so that this set of pixels can be retrieved from the digital image and the authentication information can be recovered. The chosen set of pixels need not be adjacent to each other ...*"

Similarly, at col. 20, line 41 – col. 21, line 57, Murphy recites "*Here, a pattern P of pixels is chosen in the digital image. For each pixel in the pattern, P, one or more bits in the representation of the pixel value is replaced by a bit in the bit array BA ... FIG. 7 illustrates several possible pixel patterns that may be chosen here ... In one preferred mode of this second embodiment, the least significant bit ("LSB") of each of the pixel value representations for pixels in the pattern P is replaced by a bit in the bit array BA.*"

Similarly, it is clear from col. 4, lines 11 – 25 of Murphy that the field of steganography is concerned with embedding information within pixel data, and not with recognizing patterns of pixel locations.

The rejections of claims 1 - 80 in Paragraph 3 of the Office Action will now be dealt with specifically.

As to amended independent method claim 1, applicant respectfully submits that the limitation in claim 1 of:

"*recognizing individual pixel locations as having protected or unprotected pixel datum, based on least significant bits of the pixel datum, without comparison to a template of pixel locations*",

is neither shown nor suggested in Mast or Murphy, taken individually or in combination.

Because claims 3 - 13 depend from claim 1 and include additional features, applicant respectfully submits that claims 3 - 13 are not

anticipated or rendered obvious by Mast, Murphy, or a combination of Mast and Murphy.

Accordingly claims 1 and 3 - 13 are deemed to be allowable.

As to amended independent system claim 14, applicant respectfully submits that the limitation in claim 14 of:

"*a pixel processor recognizing individual pixel locations as having protected or unprotected pixel datum, based on values of least significant bits of the pixel datum, without comparison to a template of pixel locations ...*",

is neither shown nor suggested in Mast or Murphy, taken individually or in combination.

Because claims 16 - 26 depend from claim 14 and include additional features, applicant respectfully submits that claims 16 - 26 are not anticipated or rendered obvious by Mast, Murphy, or a combination of Mast and Murphy.

Accordingly claims 14 and 16 - 26 are deemed to be allowable.

As to amended independent method claim 27, applicant respectfully submits that the limitation in claim 27 of:

"*modifying least significant bits of stored pixel data prior to its being received by the video RAM, thereby generating modified pixel data within which individual pixel locations are recognizable as having ~~being~~ protected or unprotected pixel datum, based on values of least significant bits of the pixel datum, without comparison to a template of pixel locations*",

is neither shown nor suggested in Mast or Murphy, taken individually or in combination.

Because claims 29 - 35 depend from claim 27 and include additional features, applicant respectfully submits that claims 29 - 35 are not anticipated or rendered obvious by Mast, Murphy, or a combination of Mast and Murphy.

Accordingly claims 27 and 29 - 35 are deemed to be allowable.

As to amended independent system claim 36, applicant respectfully submits that the limitation in claim 36 of:

"*a digital filter ... generating modified pixel data within which individual pixel locations are recognizable as having protected or unprotected pixel datum, based on values of least significant bits of the pixel datum, without comparison to a template of pixel locations*",

is neither shown nor suggested in Mast or Murphy, taken individually or in combination.

Because claims 38 - 44 depend from claim 36 and include additional features, applicant respectfully submits that claims 38 - 44 are not anticipated or rendered obvious by Mast, Murphy, or a combination of Mast and Murphy.

Accordingly claims 36 and 38 - 44 are deemed to be allowable.

As to amended independent method claim 45, applicant respectfully submits that the limitation in claim 45 of:

"*recognizing individual pixel locations as having protected or unprotected pixel datum, based on values of least significant bits of the pixel datum, without comparison to a template of pixel locations*"

is neither shown nor suggested in Mast or Murphy, taken individually or in combination.

Because claims 46 - 49 depend from claim 45 and include additional features, applicant respectfully submits that claims 46 - 49 are not anticipated or rendered obvious by Mast, Murphy, or a combination of Mast and Murphy.

Accordingly claims 45 - 49 are deemed to be allowable.

As to amended independent system claim 50, applicant respectfully submits that the limitation in claim 50 of:

"*a pixel processor recognizing individual pixel locations as having protected or unprotected pixel data, based on values of least significant bits of the pixel datum, without comparison to a template of pixel locations ...*",

is neither shown nor suggested in Mast or Murphy, taken individually or in combination.

Because claims 51 and 52 depend from claim 50 and include additional features, applicant respectfully submits that claims 51 and 52 are not anticipated or rendered obvious by Mast, Murphy, or a combination of Mast and Murphy.

Accordingly claims 50 - 52 are deemed to be allowable.

As to amended independent method claim 53, applicant respectfully submits that the limitations in claim 53 of:

"*modifying least significant bits of protected pixel data so as to mark it as being protected*", and

"*recognizing individual pixel locations as having pixel datum that is marked as being protected, without comparison to a template of pixel locations*",

are neither shown nor suggested in Mast or Murphy, taken individually or in combination.

Because claims 55 - 65 depend from claim 53 and include additional features, applicant respectfully submits that claims 55 - 65 are not anticipated or rendered obvious by Mast, Murphy, or a combination of Mast and Murphy.

Accordingly claims 53 and 55 - 65 are deemed to be allowable.

As to amended independent system claim 66, applicant respectfully submits that the limitations in claim 66 of:

"*a first pixel processor modifying least significant bits of protected pixel data so as to mark it as being protected*", and

"*a second pixel processor recognizing individual pixel locations as having pixel datum that is marked as being protected, without comparison to a template of pixel locations ...*"

are neither shown nor suggested in Mast or Murphy, taken individually or in combination.

Because claims 68 - 80 depend from claim 66 and include additional features, applicant respectfully submits that claims 68 - 80 are not anticipated or rendered obvious by Mast, Murphy, or a combination of Mast and Murphy.

Accordingly claims 66 and 68 – 80 are deemed to be allowable.

For the foregoing reasons, applicant respectfully submits that the applicable objections and rejections have been overcome and that the claims are in condition for allowance.

Respectfully submitted,

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